



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 18 85 32 38

**Classification of the application (IPC):**  
F16H 48/06, B60K 17/16, F16H 48/36

**Technical fields searched (IPC):**  
F16H, B60K

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y A	US 7238140 B2 (TIMKEN CO [US]) 03 July 2007 (2007-07-03) * figures 1, 3-7 *	1, 13, 14, 16 2-12, 15
Y A	US 9709148 B1 (CHU SHAUN [US]) 18 July 2017 (2017-07-18) * figures 1-4, 6-9 *	1, 13, 14, 16 2-12, 15
Y A	US 7115057 B2 (ARVINMERITOR TECHNOLOGY LLC [US]) 03 October 2006 (2006-10-03) * figures 1-5 *	1, 13, 14, 16 2-12, 15
A,D	US 4776235 A (GLEASMAN VERNON E [US] ET AL) 11 October 1988 (1988-10-11) * figures 1-9 *	1-16
Y A	EP 1621800 A2 (TIMKEN CO) 01 February 2006 (2006-02-01) * figures 1, 3-11 *	1, 13, 14, 16 2-12, 15
Y A	US 9109687 B1 (CHU SHAUN J [US]) 18 August 2015 (2015-08-18) * figures 1-4 *	1, 13, 14, 16 2-12, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 15 February 2021	Examiner Szodfridt, Tamas
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 15-02-2021  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7238140	B2	03-07-2007	NONE
US 9709148	B1	18-07-2017	US 9709148 B1 18-07-2017 US 2017307058 A1 26-10-2017 US 2019383379 A1 19-12-2019
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US 4776235	A	11-10-1988	NONE
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